

WHAT IS CLAIMED IS:

1. A switch and backlight assembly comprising a keypad, a circuit board spaced from the keypad, and a flexible light panel between the keypad and circuit board for backlighting the key pad, the light panel having a back reflector on a side facing away from the keypad, and the back reflector having a plurality of contacts on a side facing the circuit board for establishing electrical contact of one or more of the contacts with the circuit board by selectively actuating the keypad to cause flexing of selective portions of the light panel and back reflector toward the circuit board.

2. The assembly of claim 1 further comprising spacers surrounding the contacts.

3. The assembly of claim 2 wherein the spacers are formed by a spacer layer on the one side of the back reflector, the spacer layer having holes extending through the spacer layer in line with the contacts for exposing the contacts for selective contact with respective conductive contacts on the circuit board when the key pad is actuated.

4. The assembly of claim 3 wherein the spacers are formed from a compressible material.

5. The assembly of claim 2 wherein the back reflector and spacers are integrated into a single layer.

6. The assembly of claim 2 wherein the back reflector and spacer layer are vacuum formed or molded as a single unit.

7. The assembly of claim 1 wherein the contacts are conductive ink contacts.

8. The assembly of claim 1 wherein the contacts are printed on the side of the back reflector facing the circuit board.

9. The assembly of claim 1 wherein the panel member is comprised of a plurality of optical fibers.

5 10. The assembly of claim 1 wherein the panel member is a flexible light guide.

11. The assembly of claim 1 wherein the keypad is made from a flexible elastomeric material.

10 12. The assembly of claim 1 wherein the keypad comprises a plurality of rigid keys held in a frame or housing for movement of the keys toward and away from the light panel.

15 13. The assembly of claim 1 wherein the keypad comprises a plurality of rigid keys formed as a single unit with flexible joints between the keys to permit movement of the keys toward and away from the light panel.

20 14. An integrated switch and backlight assembly comprising a keypad having a plurality of selectively depressible keys, a circuit board spaced from the keypad having circuit board contacts thereon, and a flexible light emitting panel member between the keypad and the circuit board, the panel member having one side facing the keypad from which light conducted through the panel member is emitted for backlighting the keys and an opposite side facing the circuit board, and a back reflector on the opposite side, the back reflector having a plurality of
25 contacts on an exterior surface of the back reflector, portions of the panel member and back reflector being selectively flexed upon selectively depressing one or more of the keys to establish electrical contact of one or more of the contacts on the back reflector with one or more of the circuit board contacts.

30 15. The assembly of claim 14 further comprising spacers surrounding the contacts on the back reflector.

16. The assembly of claim 15 wherein the spacers are formed by a spacer layer covering the exterior surface of the back reflector, the spacer layer

having holes in line with the contacts on the back reflector for exposing the contacts on the back reflector to the circuit board contacts.

5 17. The assembly of claim 16 wherein the spacers are formed from a compressible material.

 18. The assembly of claim 15 wherein the spacers and back reflector are integrally formed into a single layer.

10 19. The assembly of claim 15 wherein the back reflector and spacer layer are vacuum formed or molded as a single unit.

 20. The assembly of claim 14 wherein the contacts on the back reflector are conductive ink contacts printed on the exterior surface of the back reflector.

 21. The assembly of claim 14 wherein the panel member is comprised of a plurality of optical fibers.

20 22. The assembly of claim 14 wherein the panel member is a flexible light guide.

 23. The assembly of claim 14 wherein the keypad is made from a flexible elastomeric material.

25 24. The assembly of claim 14 wherein the keypad comprises a plurality of rigid keys held in a frame or housing for movement of the keys toward and away from the light panel.

30 25. The assembly of claim 14 wherein the keypad comprises a plurality of rigid keys formed as a single unit with flexible joints between the keys to permit movement of the keys toward and away from the light panel.